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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/657,494  
Filing Date: September 08, 2003  
Appellant(s): HILTON ET AL.

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Kevin S. Lemack  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed July 26, 2007 appealing from the Office  
action mailed July 7, 2005

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Application Nos. 10/674,745; 10/306,594 and 10/044,407.

Board's decision NONE.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct. However, the applicants failed to state that the amendment after final rejection filed on 1-5-2006 has been entered.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

|             |                  |         |
|-------------|------------------|---------|
| 6645291     | Ayambem, et. al. | 11-2002 |
| 6436185     | Ayambem et al.,  | 8-2002  |
| 2002/038618 | Ayambem ey al.,  | 4-2002  |
| 2003/105204 | Ayambem et.al.,  | 5-2003  |

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 112***

Claims 10 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 10 and claim amount of adherence and coherence agent in reference to the amount of another component, namely water, which is NOT a part of the claimed mixture. In fact, the water is *excluded* from the claimed *dry* mixture. The actual amount of water is NOT defined in any of the claims, or for that matter, anywhere in the specification with regard to the claimed dry components. The limitation of claims 10 and 11 defining the amount of the stabilizing agent in reference of undefined amount of water, thus, is indefinite.

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Claims 1-8 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of four Ayambem et al., references, i.e., US Patents and PGP Nos. 6645291, 6436185, 2002/038618 or 2003/105204.

Since the references are related to each other and have substantially similar disclosures, the references are made to lines and columns of '185 patent.

Each one of the references disclose compositions containing a hydraulic binder, such as calcium carbonate and calcium sulfate hemihydrate (or stucco), and water soluble polymeric set retarder (column 4, lines 38-42). The reference further expressly discloses addition of polymeric binders, including polyvinyl alcohol, which fully correspond too the claimed foam stabilizer as being the identical chemical compound to the claimed foam stabilizer (as per claim 2). See column 8, last paragraph. While naming PVA a different name, i.e., a binder, this component (which is identical to the claimed PVA) is inherently capable of some degree of stabilizing the foams as having this property by virtue of being identical chemical compound to the claimed compound, and in the absence of any claimed quantitative characteristic that ab be associated with "stabilizing" property of the claimed stabilizer.

While the reference discloses water based compositions, the reference expressly discloses that the dry components can be separately preblended. See column 7, lines 45-52 of '185 reference. (further references to specific columns and lines are all made with regard to the '185 patent). Furthermore, in the illustrative examples the drying-type joint compound (which includes, for example, gypsum as per disclosure in column 8, lines 21-26) is first dry blended with a water soluble polymeric set retarder. Addition

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of binders (dry components as per column 7, lines 45-52, is also within purview of the references. Therefore, dry intermediate compositions containing all the claimed elements (even though, they are disclosed as intermediate compositions<sup>0</sup> are clearly within the purview of the reference.)

As far as the claimed properties of the dry compositions being capable of forming as pumpable slurry upon addition of water and the slurry being capable of forming settleable foam upon application of mechanical turbulence, first of all, these properties are believed to be inherent in the disclosed compositions as the compositions disclosed in the references are substantially similar to the claimed compositions. Furthermore, the amount of water added to the composition or the amount of mechanical turbulence is not specified in the claims. It is further reasonably believed that upon addition of sufficient amount of water to preblended dry intermediate product of Ayambem et al., and sufficient pump force, the disclosed compositions based on calcium carbonate are "pumpable". Similarly, upon addition of water and sufficient "turbulence" the compositions are clearly capable of being foamed and spray applied, again depending on external factors such as amounts of water and force applied to the slurry.

Limitations of claims 10 and 11 are inherently met by the Ayambem references since, as discussed above, the limitations recited in these claims are indefinite and would be met by ANY composition having any amount of adherence and coherence agent given that virtually any amount of water can be added to the composition to provide the composition with the property of pumpable slurry.

Insofar as adding specific additives such as fibers and alpha-olefin sulfates (probably meant as sulfonates), it is the examiners position that addition of such well known components would have been obvious as one of a known additive or reinforcer for their known function.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over any of the four cited Ayambem references as applied to claims 2 in combination with applicants own admission on the record.

The Ayambem references while teaching that polyvinyl alcohols (PVA) are suitable component of the disclosed compositions, are silent with respect to size of the of the suitable PVA. Silence with respect to the physical characteristics of suitable PVA, implies that the physical characteristics, such as powder size is not a key feature of the disclosed invention and that any commercially available PVA are suitable for the invention disclosed in Ayambem references absent showing of unexpected results that can be clearly attributed to the claimed powder size. Applicants admit on the record that the claimed powder size PVA are readily available on the market, and, furthermore state that "Those skilled in the art can readily determine which commercially available polyvinyl alcohol powders in addition to the foregoing are suitable", (see top of page 7 of the instant disclosure), thus clearly implying that the claimed PVA powders are well known and choosing it would have been obvious for an ordinary artisan with reasonable expectation of adequate results in the absence of showing of unexpected results, of which none is present on the record.

#### **(10) Response to Argument**

The applicants argue that claims 10 and 11 are not indefinite since effective amount of stabilizing agent is added to the dry mixture based upon the knowledge that water will eventually be added to create the slurry. That the water does not form part of the claimed dry mixture does not render indefinite the amount of stabilizing agent, since those skilled in the art can readily determine the amount of water necessary to form the slurry. That is, the amount of the agent is based upon a predetermined amount of water to be added to the dry mixture at a later point. This argument, first of all, is based on the premises that the claimed dry composition will necessarily be used for the end use intended by applicants and in accordance with the formulations exemplified in the specification. This is fundamentally wrong assumption because the claimed dry mixtures, while have to be suitable for use in the applicants intended uses upon addition of water, do not have to be used as such, as for example, evident by Ayambem references, and may be used for variety of different end uses requiring addition of water or not, and if so in wide variety of amounts that may not be known upon formulating of dry mixture, since the manufacturer of the dry mixture may not know all of the final uses of the dry mixture. The bottom line is that the amount of a components of the claimed dry mixture is defined with respect to the amount of a component, i.e., water, that is not a part of the claim.

With respect to the rejection of claims 1-8 and 10-11 over any of the Ayambem references the applicants argue that since the Ayambem et al. references disclose a joint compound for us filling and coating joints between adjacent gypsum wallboard, the joint compound necessarily includes water, and other compounds such calcium



carbonate, optionally calcium sulfate hemihydrate, and water-soluble set retarder. The applicants argue that the compositions disclosed by the reference are necessarily "wet" (as necessarily containing water). This argument is not persuasive since the references clearly state that the dry components of the water based mixture may be pre-blended. See column 7, lines 45-52 of '185 reference. (further references to specific columns and lines are all made with regard to the '185 patent as done by the applicants in the Brief). Furthermore, in the illustrative examples the drying-type joint compound (which includes, for example, gypsum as per disclosure in column 8, lines 21-26) is first dry blended with a water soluble polymeric set retarder. Addition of binders (dry components as per column 7, lines 45-52, is also within purview of the references. Therefore, dry compositions containing all the claimed elements (even though, they are disclosed as intermediate compositions) are clearly within the purview of the reference. Furthermore, it has been long established by the law, *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930), that selection of any order of mixing ingredients is *prima facie* obvious. Thus, intermediate product containing only dry components as added to the mixture prior to addition of water, are also *prima facie* obvious from the disclosure of the reference.

The applicants further argue that there is no indication in the references that the joint compound is pumpable upon the addition of water, or that upon the application of mechanical turbulence, the composition form a settable foam capable of spray application, as required by the instant claims. This argument is directed to the properties of the compositions which the compositions will exhibit upon addition of

unspecified amount of water. First of all, simply because the reference is silent as to some properties of the composition, does not mean that those properties are not inherently exhibited by the disclosed compositions, and, since the compositions disclosed in the cited references are substantially the same as the claimed compositions, it is reasonable believed that they inherently exhibit such properties. Furthermore, as discussed above, the properties are defined with respect of unspecified amounts of added water. In this respect, virtually any stucco- or calcium carbonate based composition forms a "pumpable slurry" upon addition of large amounts of water and sufficient pump pressure. Similarly, depending of the amount of mechanical turbulence virtually any stucco or calcium carbonate -based compositions form a settable foam capable of spray application. Note again, that the claimed properties are recited with respect to the compositions that have unspecified amount of water added to it, thus method of applications of the compositions disclosed in the references is irrelevant, since a lot more water could be added to achieve the desired pumpable slurry. Note that lack of teaching in Ayambem reference to apply such turbulence is irrelevant to the properties of the mixtures as claimed, i.e., that the mixtures exhibit given properties when such turbulence is applied. This is similar to specifying a test conditions upon which the property is measured. Simple because such test is not disclosed or suggested in the reference, has nothing to do whether this property will as claimed upon performing the test.

The applicants further argue that addition, the instant claims require that the foam stabilizing agent present the dry mixture in an amount effective for stabilizing the

foam. Ayambem do not disclose or suggest using foam stabilizing agent, or using foam stabilizing agent in an amount effective for stabilizing foam as now claimed. Indeed, foaming is nowhere contemplated by Ayambem .et al.

This argument is, again, not convincing. While the reference may not call or name a given component by its function, the component disclosed by Ayambem et al., is, nevertheless, identical to the claimed "foam stabilizing agent", i.e., it is the same PVA polymer whether it is called a binder or a stabilizing agent. It is well recognized in the law that a chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990) . In the instant case, as discussed above, the component is PVA, which, by its very presence will inherently impart some foam stabilization properties. (Note that degree of stabilization or any quantitative characteristics associated with it are not claimed in any of the claims).

The fact that the reference does disclose an optional defoaming compound does not make any of the other embodiments which do not contain such component any less obvious, simply by the virtue that the defoaming compound is just that - an optional component for certain disclosed embodiments.

The applicants further argue that claims 10 and 11 are separately patentable over the disclosure of the cited references since those claims additionally recite the "effective amounts" of polyvinyl alcohol as a foam stabilizing agent. These amounts are from about 1% to 12 % based on the mass of water added to the dry mixture to form the

pumpable slurry (claim 10) and from 2 to 3 % by mass of water added the dry mixture to form the pumpable slurry (claim 11). The polyvinyl alcohol binder of Ayambem et al., is used in an amount of about 0.1 wt% about 0.4 wt % based on the total weight of joint compound.

First of all, as discussed above, the claimed amounts are indefinite since they are claimed in respect to the unspecified amounts of added water. Second of all, even though, the disclosed amounts of PVA do not exceed 0.4 % of the compositions, in view of the same compositions having as low as 20 % of water, the relative amount of PVA and water disclosed by the reference fully correspond to the claimed amounts. Note, as discussed above, any calcium carbonate based composition (even containing only 20 % of water) can be made "pumpable" depending on the applied pump force.

The applicants further state that claim 9 would not have been obvious by the virtue of depending on allegedly unobvious claim 1. Since the examiner, as per discussions above, is of the position that claim would have been obvious, this argument is moot and/or answered above in discussion of the independent claim. With regard of the applicants argument that the determination by those skilled the art referred by Applicant is only after the skilled artisan has read and understood the teachings of the instant specification are equally applicable to the disclosures of the cited references. Once the disclosures of the Ayambem references are understood, it is within the skills of an ordinary artisan to determine which specific grades of PVA are suitable in the absence of showing of unexpected results.

**(11) Related Proceeding(s) Appendix**

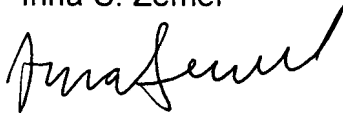
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No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

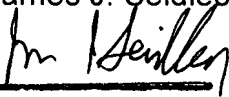
Respectfully submitted,

Irina S. Zemel



Conferees:

James J. Seidleck



SPE 1796

~~APPEAL CONFERENCE~~



David Wu, SPE 1796